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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,642	08/07/2003	Michio Endo	21 776-00046-US1	8802

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EXAMINER

WYSZOMIERSKI, GEORGE P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,642

Applicant(s)

ENDO ET AL.

Examiner

George P. Wyszomierski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/7/2003 (Divisional Application).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36,37,39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36,37,39 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/7/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The preliminary amendment filed with this application on August 7, 2003 has been entered. The pending claims are 36, 37, 39 and 40.

2. Claims 39 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) In claim 39, the phrase "said moving-flow regulation means" lacks proper antecedent basis.

b) In claim 40, the meaning of the phrase "a convection of the oil...is physically regulated" is unclear. Convection is a means of heat transfer, not a physical object. It unclear what physical actions or what manner any such physical actions take would or would not cause a given process to fall within the scope of this claim.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 36 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by any of Yabuki et al. (U.S. patent 4,744,821), Saxena (U.S. patent 5,402,992), or German patent 4012197.

The prior art discloses making spherical metal particles by allowing a specific amount of molten metal to fall into an oil cooling bath, wherein the temperature of at least one portion of

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the oil is maintained at a given level by use of a cooling tube or a cooling device that wraps around a vessel that holds the oil. Thus, all aspects of the claimed invention are held to be fully met by Yabuki et al., Saxena, or Germany '197.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 39 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over any of Yabuki et al., Saxena, or Germany 4012197.

It is unclear precisely what the scope of this claim would be, for reasons as stated in item 2(a) supra. Nonetheless, it appears that the prior art utilizes some type of projection in an upper part of where molten metal falls into the oil, e.g. holes of a particular size which result in a desired final form of the metal particles in the prior art. Thus, the limitations of this claim would be inherently met by Yabuki et al., Saxena, or German '197.

At a minimum, the examiner notes that this claim is directed entirely to apparatus limitations. It is well-settled that such limitations do not result in a patentable process when the actual steps of the process are known; compare *In re Sweeney* (72 USPQ 501). Given that the claimed process is described in the prior art, as set forth in item 4 supra, the examiner's position is that at the very least the disclosures of Yabuki et al., Saxena, or German '197 create a prima facie case of obviousness of the presently claimed invention.

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7. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over any of Yabuki et al., Saxena, German '197, or Ohzeki (U.S. Patent 5,653,783).


Each of the above prior art references discloses forming spherical metal particles by dropping molten metal into an oil bath, in which the temperature of at least one portion of the oil is controlled or regulated. The prior art does not specify physically regulating the convection of the oil. However, convection in general is related to such parameters as viscosity and flow rate of a liquid. Control of such parameters in the prior art would appear to result in at least some regulation of convection in the oil. Thus, the disclosures of Yabuki et al., Saxena, German '197, or Ohzeki are held to create a prima facie case of obviousness of the presently claimed invention.

8. The remainder of the art cited on the attached PTO-892 and 1449 forms is of interest. This art is held to be no more relevant to the claimed invention than the art as applied in the rejections, supra.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. Effective July 15, 2005, all patent application related correspondence transmitted by facsimile must be directed to the new central facsimile number, (571)-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GPW
July 21, 2005


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1700